

# List of publications

Florent Leclercq

[www.florent-leclercq.eu](http://www.florent-leclercq.eu)

19 September 2020

## Refereed Journal Articles

13. *Parameter Inference for Weak Lensing using Gaussian Processes and MOPED*  
A. Mootooyaloo, A. F. Heavens, A. H. Jaffe, F. Leclercq  
MNRAS **497**, 2213 (2020), arXiv:2005.06551 [astro-ph.CO] (citation: **1**)
12. *Perfectly parallel cosmological simulations using spatial comoving Lagrangian acceleration*  
F. Leclercq, B. Faure, G. Lavaux, B. D. Wandelt, A. H. Jaffe, A. F. Heavens, W. J. Percival, C. Noûs  
A&A **639**, A91 (2020), arXiv:2003.04925 [astro-ph.CO] (citation: **1**)
11. *Primordial power spectrum and cosmology from black-box galaxy surveys*  
F. Leclercq, W. Enzi, J. Jasche, A. Heavens  
MNRAS **490**, 4237 (2019), arXiv:1902.10149 [astro-ph.CO] (citations: **5**)
10. *Bayesian optimisation for likelihood-free cosmological inference*  
F. Leclercq  
Physical Review D **98**, 063511 (2018), arXiv:1805.07152 [astro-ph.CO] (citations: **19**)
9. *The phase-space structure of nearby dark matter as constrained by the SDSS*  
F. Leclercq, J. Jasche, G. Lavaux, B. Wandelt, W. Percival  
JCAP **6**, 49 (2017), arXiv:1601.00093 [astro-ph.CO] (citations: **11**)
8. *Cosmological N-body simulations including radiation perturbations*  
J. Brandbyge, C. Rampf, T. Tram, F. Leclercq, C. Fidler, S. Hannestad  
MNRAS Letters **466**, L68 (2017), arXiv:1610.04236 [astro-ph.CO] (citations: **21**)
7. *Comparing cosmic web classifiers using information theory*  
F. Leclercq, G. Lavaux, J. Jasche, B. Wandelt  
JCAP **8**, 27 (2016), arXiv:1606.06758 [astro-ph.CO] (citations: **12**)
6. *Cosmic web-type classification using decision theory*  
F. Leclercq, J. Jasche, B. Wandelt  
A&A Letters **576**, L17 (2015), arXiv:1503.00730 [astro-ph.CO] (citations: **19**)
5. *Bayesian analysis of the dynamic cosmic web in the SDSS galaxy survey*  
F. Leclercq, J. Jasche, B. Wandelt  
JCAP **6**, 15 (2015), arXiv:1502.02690 [astro-ph.CO] (citations: **35**)
4. *Dark matter voids in the SDSS galaxy survey*  
F. Leclercq, J. Jasche, P. M. Sutter, N. Hamaus, B. Wandelt  
JCAP **3**, 47 (2015), arXiv:1410.0355 [astro-ph.CO] (citations: **29**)
3. *Past and present cosmic structure in the SDSS DR7 main sample*  
J. Jasche, F. Leclercq, B. D. Wandelt  
JCAP **1**, 36 (2015), arXiv:1409.6308 [astro-ph.CO] (citations: **47**)
2. *One-point remapping of Lagrangian perturbation theory in the mildly non-linear regime of cosmic structure formation*  
F. Leclercq, J. Jasche, H. Gil-Marín, B. Wandelt  
JCAP **11**, 48 (2013), arXiv:1305.4642 [astro-ph.CO] (citations: **27**)
1. *Main Sequence Stars with Asymmetric Dark Matter*  
F. Iocco, M. Taoso, F. Leclercq, G. Meynet  
Physical Review Letters **108**, 061301 (2012), arXiv:1201.5387 [astro-ph.SR] (citations: **36**)

- Other Refereed Publications**
1. *One-point statistics of the Lagrangian displacement field*  
Addendum to *One-point remapping of Lagrangian perturbation theory in the mildly non-linear regime of cosmic structure formation*  
F. Leclercq, J. Jasche, B. Wandelt  
JCAP 4, 26 (2015), arXiv:1507.08664 [astro-ph.CO] (citations: 2)
- Submitted Articles**
2. *Velocity debiasing for Hubble constant measurements from standard sirens*  
S. Mukherjee, G. Lavaux, F. R. Bouchet, J. Jasche, B. D. Wandelt, S. M. Nissanke, F. Leclercq, K. Hotokezaka  
arXiv:1909.08627 [astro-ph.CO] (citations: 16)
  1. *Systematic-free inference of the cosmic matter density field from SDSS3-BOSS data*  
G. Lavaux, J. Jasche, F. Leclercq  
arXiv:1909.06396 [astro-ph.CO] (citations: 5)
- Conference Proceedings**
4. *Probabilistic cartography of the large-scale structure*  
F. Leclercq, J. Jasche, G. Lavaux, B. Wandelt  
Proceedings of the “Rencontres du Vietnam” 2015, Cosmology 50 years after CMB discovery, August 16-22, 2015, Quy Nhon, Vietnam  
arXiv:1512.02242 [astro-ph.CO] (citations: 2)
  3. *Bayesian inference of the initial conditions from large-scale structure surveys*  
F. Leclercq  
Proceedings of the IAU Symposium 308, “The Zel’dovich Universe: Genesis and Growth of the Cosmic Web”, June 23-28, 2014, Tallinn, Estonia  
doi:10.1017/S1743921316009984, arXiv:1410.2271 [astro-ph.CO]
  2. *Bayesian large-scale structure inference: initial conditions and the cosmic web*  
F. Leclercq, B. Wandelt  
Proceedings of the IAU Symposium 306, “Statistical Challenges in 21st Cosmology”, May 25-29, Lisbon, Portugal  
doi:10.1017/S1743921314011120, arXiv:1410.1546 [astro-ph.CO] (citation: 1)
  1. *Bayesian inference of dark matter voids in galaxy surveys*  
F. Leclercq  
Proceedings of the “Rencontres de Moriond”, Cosmology session 2014, March 22-29, 2014, La Thuile, Italy  
arXiv:1410.0865 [astro-ph.CO]
- Book Chapters**
1. *Cosmology: from theory to data, from data to theory*  
F. Leclercq, A. Pisani, B. Wandelt  
Lectures given at the International School of Physics Enrico Fermi “New Horizons for Observational Cosmology”, June 30-July 6, 2013, Varenna, Italy  
doi:10.3254/978-1-61499-476-3-189, arXiv:1403.1260 [astro-ph.CO] (citations: 4)
- PhD Thesis**
- Bayesian large-scale structure inference and cosmic web analysis*  
F. Leclercq  
Institut d’Astrophysique de Paris, 2015  
tel-01265548, arXiv:1512.04985 [astro-ph.CO] (citations: 8)
- Public Data and Codes**
3. *pySELFIE*  
Python implementation of the *Simulator Expansion for Likelihood-Free Inference* (SELFIE) algorithm.  
F. Leclercq  
doi:10.5281/zenodo.3341588, GitHub:florent-leclercq/pyselfi,  
http://pyselfi.florent-leclercq.eu

**2.** *SIMBELMYNĚ*

A hierarchical probabilistic simulator to generate synthetic galaxy survey data

[F. Leclercq](#)

Additional contributions from: B. Faure, M. M. Ali Mohamed

[BitBucket:florent-leclercq/simbelmyne](#), <http://simbelmyne.florent-leclercq.eu>

**1.** *The BORG SDSS data release*

Public release of data products following the BORG SDSS analysis

[F. Leclercq](#), [J. Jasche](#), [B. Wandelt](#)

Additional contributions from: N. Hamaus, G. Lavaux, P. M. Sutter

[doi:10.5281/zenodo.1455729](https://doi.org/10.5281/zenodo.1455729), [GitHub:florent-leclercq/borg\\_sdss\\_data\\_release](#),

<http://data.florent-leclercq.eu>

Source of citation counts: [NASA ADS](#), 19 September 2020.